**Electricity and Magnetism Study Guide**

*Define the following terms:*

1. Volts
2. Amps
3. Ohms
4. Circuit
5. Resistance

What type of wires have greater resistance? \*think shape and size\*

1. Conductors

Examples:

1. Insulators

Examples:

*Answer the following questions about parallel and series circuits:*

|  |  |  |
| --- | --- | --- |
|  | **Parallel** | **Series** |
| 1. How many paths does it take? |  |  |
| 1. Do all loads have to be on to work? |  |  |
| 1. Do the appliances shares voltage? |  |  |
| 1. Is this a good way to wire a home? |  |  |
| 1. How do extra bulbs affect the brightness of the others? |  |  |
| 1. Give Examples |  |  |

What does a switch do?

*Describe static electricity*

1. How does it move?
2. What does it consists of?
3. Describe how charges are attract/repel one another.
4. Give examples of static electricity

*Answer the following questions about electrical current*

1. Define electrical current
2. Describe a alternating current (A.C.)

Examples:

1. Describe a direct current (D.C.)

Examples:

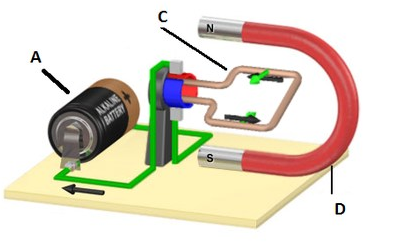
1. What does a switch do?

*Answer the following questions about magnets*

1. Describe the magnetic field of a magnet
2. How the magnetics aligned in a magnet field?
3. Where is the force of a magnet the strongest? Weakest?
4. Sketch a magnetic field of a bar magnet
5. Give an example of a natural magnet?
6. What types of items can become natural magnets? \*\*\*What are they made of\*\*

*Answer the following questions about Electromagnets*

1. What are the parts of an electromagnet?
2. How can you increase the strength of an electromagnet?
3. How and when can an electromagnetic be useful?
4. Label the following diagram of an electromagnet



A.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ C. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer the following questions about generators and motors

1. What does an electric motor do?
2. What does a generator do?